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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,936	01/05/2000	HARRY E. EMERSON	17617-46	9952

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EXAMINER

MYHRE, JAMES W

ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/477,936

Applicant(s)
Emerson et al

Examiner
James W. Myhre

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 22, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-9 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22, 2003 has been entered.

Response to Amendment

2. As requested by the above request for continued examination, the after-final amendment filed on August 25, 2003 has been considered but is ineffective to overcome the Chen et al (5,917,830), Capek et al (6,094,677), and Wachob (5,155,591) references.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (5,917,830) in view of Capek et al (6,094,677) and Wachob (5,155,591).

Claims 1 and 7: Chen discloses a system and method for substituting advertisements during a broadcast stream, comprising:

- a. Generating, digitizing, and storing a plurality of replacement commercials (e.g. advertisements) for insertion into the broadcast stream (col 4, lines 39-41 and col 13, lines 15-20);
- b. Marking the broadcast with the start and end times (e.g. duration) of the commercial (col 2, lines 18-21; col 6, line 66 - col 7, line 10; and col 13, lines 15-20);
- c. Receive the broadcast stream (col 13, lines 57-62);
- d. Detect and read the insertion marker on the broadcast stream (col 6, lines 1-10 and col 12, lines 36-37);
- e. Select and substitute (insert) a replacement commercial into the broadcast stream at a point corresponding to the insertion marker (col 8, lines 1-5 and col 14, lines 3-12); and
- f. Repeat the detection and insertion of replacement commercials throughout the broadcast stream (col 13, line 61 - col 14, line 7).

While Chen uses a network television broadcast as an exemplary use of the invention, it is also disclosed that the invention can be applied “for splicing a secondary packetized data stream, such as a commercial, with a primary packetized data stream” (col 4, lines 7-9) and that the secondary packetized data streams (commercials) being inserted (spliced) “may include digital

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audio tapes” or ”compact audio discs (CDS)” (col 4, lines 39-43) and that “audio only or data only messages may be inserted into the main packetized data stream” (col 4, lines 57-59). The Applicant’s invention is directed to inserting a replacement commercial into a radio broadcast being received via the Internet. The Examiner notes that both radio and television broadcasts may be received via the Internet, and that both are “packetized data streams”. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the packetized data stream into which Chen is inserting commercials could contain either audio/video data (i.e. television) or only audio data (i.e. radio). One would have been motivated to use Chen’s system and method to insert commercials into a radio broadcast in view of his disclosure of inserting audio only data and storing digital audio tapes.

Chen discloses replacing main stream commercials with the selected commercials (col 14, lines 7-12) and also discloses marking and detecting the start and end times of the insertion points (T_{in} and T_{out} ; col 13, lines 15-20). Additionally, Chen discloses that “the system should avoid any discontinuity which results in a non-compliant data stream. The data stream should also preclude problems such as syntax violations, decoding errors, buffer overflow or underflow, timing recovery problems due to discontinuous time stamps, audio/video synchronization problems, and video display artifacts” (col 1, line 65- col 2, line 3). While it is not explicitly disclosed that a comparison is made to determine whether the duration of the replacement commercial corresponds to the duration of the main stream commercial being replaced (based on the start and end times), it is implied that such a comparison is being made in order to “avoid

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discontinuity” and “buffer overflow or underflow” and to ensure that the beginning of the replacement commercial(s) is at T_{in} and the end of the replacement commercial(s) is at T_{out} (col 14, lines 3-7). Capek discloses a similar system and method for inserting commercials into data streams containing content information which also determines whether the duration of the insertion point is sufficiently long to allow insertion of a commercial (col 4, lines 43-51; col 5, lines 23-28; and col 9, lines 57-61). This implies that the duration of each stored replacement commercial is known and used in the determination (comparison). Wachob also discloses a similar system and method for providing targeted advertisements to users with a cable television broadcast as an exemplary use of the invention. Wachob further explicitly discloses that the targeted advertisement would replace the original advertisement in the broadcast and be selected based on the determination of “the length of the impending commercial message break” (col 7, lines 34-37) based on received tag information which “defines if and when a commercial is about to occur, how long it will last” (col 7, lines 18-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to compare the durations of the main stream commercial and the replacement commercial when selecting the replacement commercial in the Chen invention. One would have been motivated to compare these durations in order to decrease the likelihood of “blank time” during the reception of the broadcast if the replacement commercial was shorter than the main stream commercial or “overwriting” of the main stream broadcast (content) if the replacement commercial was longer than the main stream commercial.

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While Chen does not explicitly disclose using consumer demographics and preferences to select (target) the replacement commercial, Capek discloses that the information “may be customized to either the user or the material requested, or both” (col 4, lines 43-51 and col 8, lines 7-58) and that “the insertion manager 20 then selects a customized insertion based upon the client profile for the requesting client” (col 12, lines 32-39), or type of information requested (col 12, lines 34-39). Wachob also discloses selecting the targeted advertisement “based on the viewer’s demographic characteristics” (col 2, lines 62-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to base the selection of the commercials in Chen upon how well it matches the consumer’s demographic information and preferences. One would have been motivated to use this type of selection in Chen in order to present commercials which are more pertinent to the consumer (“to increase the users interest and to make the information more engaging”, Capek, col 7, lines 8-10), thus increasing the acceptance and interaction with the commercial by the consumer.

Claim 2: Chen, Capek, and Wachob disclose a method and system for substituting advertisements during a broadcast stream as in Claim 1 above. Chen also discloses that the marking of the start and end times of the insertion point is performed by the broadcast station (col 6, line 66 - col 7, line 10 and col 13, lines 15-20).

Claim 3: Chen, Capek, and Wachob disclose a method and system for substituting advertisements during a broadcast stream as in Claim 2 above. Both Chen and Capek also disclose digitizing the audio stream into sequential packets to allow for presenting a series of

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packets in the proper order as one complete commercial (Chen, Fig. 6a, items A1-A11 and col 14, lines 56-65)(Capek, col 5, lines 14-16; col 7, lines 42-47; and col 8, line 59 - col 9, line 5).

Claims 4, 8, and 9: Chen, Capek, and Wachob disclose a method and system for substituting advertisements during a broadcast stream as in Claims 1, 2, 3, and 7 above. While Chen does not explicitly disclose using consumer demographics to select (target/match) the replacement commercial, Capek discloses that the information “may be customized to either the user or the material requested, or both” (col 4, lines 43-51 and col 8, lines 7-58) and that “the insertion manager 20 then selects a customized insertion based upon the client profile for the requesting client” (col 12, lines 32-39), or type of information requested (col 12, lines 34-39). Wachob also discloses selecting the targeted advertisement “based on the viewer’s demographic characteristics” (col 2, lines 62-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to base the selection of the commercials in Chen upon how well it matches the consumer’s demographic information. One would have been motivated to use this type of selection in Chen in order to present commercials which are more pertinent to the consumer (“to increase the users interest and to make the information more engaging”, Capek, col 7, lines 8-10), thus increasing the acceptance and interaction with the commercial by the consumer.

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Response to Arguments

5. Applicant's arguments filed August 25, 2003 have been fully considered but they are not persuasive.

A. The Applicant repeats his previous argument in reference to Claims 1 and 7 that Chen does not disclose that the packetized data stream is being delivered to an Internet hosting service, nor that it is a bi-directional communication system (page 7). The Examiner again notes that, as discussed in the rejection above and in the final rejection of March 27, 2003, both television and radio transmissions can be received over the Internet. Furthermore, many cable television systems also offer Internet connections via the customer's cable television lines, thus becoming "Internet hosting services". Since Chen shows that the Video Information Providers (VIP)(i.e. cable television system) includes an internet gateway as the Applicant pointed out, it is obvious that the Video Information User (VIU)(i.e. customer) could connect to and receive information, such as radio or television broadcasts, from the Internet through Chen's cable television system. This is made even more explicit by Chen's disclosure that the packetized data stream is ultimately delivered through the cable television network and displayed to the VIU "via televisions 170, 172 and/or personal computer 174" (col 5, lines 15-17). The Examiner also notes that, although argued by the Applicant, there does not seem to be any bi-directional communication in the claimed invention other than the presumption that the customer has requested to view or listen to the desired program either by tuning to the proper channel or by connecting to the proper site online, which is also presumed to be the case in the cited references.

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B. The Applicant also again argues in reference to Claims 1 and 7 that neither Chen, Capek, nor Wachob disclose comparing the durations of the replacement commercial with the duration of the main commercial being replaced (page 4). The Examiner notes that this has been discussed in the rejection above and in the final rejection of March 27, 2003. Chen discloses replacing the packets in the main stream with packets from the secondary stream based on the start and end times (T_{in} and T_{out}) received from the main stream, and further discloses that in a series of replacement commercials “the beginning of the first commercial will correspond to T_{in} , and the end of the last commercial will end at T_{out} ” (col 14, lines 3-7). This implies that the duration of the replacement commercial is being compared to the duration of time between T_{in} and T_{out} . Without such a comparison, Chen could not make the cited statement. Additionally, both Capek and Wachob also disclose determining the duration of the commercial opportunities. Wachob, in particular, explicitly discloses that the “tag information defines if and when a commercial is about to occur, how long it will last” and “the length of the impending commercial message break is determined from the tag information transmitted by the headend” (col 7, lines 18-20 and 34-36).

C. The Applicant finally argues again that “a proposed combination of references must be read as a whole” and that it is improper to “pick and choose among individual parts of assorted prior art references”... “to recreate a facsimile of the claimed invention” (pages 10 & 11). The Examiner agrees that the whole of each reference must be considered, but disagrees that all the individual parts of each reference must be compatibly combinable. Manytimes, even within a

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single reference, numerous alternate embodiments are disclosed which contain individual parts that are impossible or inane to combine with another embodiment's parts. For example, a bill paying system could contain one embodiment where the payee submits the payment via postal mail, another embodiment where the payer submits the payment via the Internet, and another embodiment where the payer submits the payment through automatic electronic funds transfer from his bank to the payee's bank. This clearly shows that there are three alternative ways to submit the payment. However, it would not make any sense whatsoever for the payer to submit a payment using all three of the disclosed methods...one payment is sufficient. In the present application, the Examiner has used three references which present various ways to replace and/or insert desired commercials into a packetized data stream, either with or without demographic targeting. It would have been obvious to one having ordinary skill in the art at the time the invention was made to consider each of these references (and others) and to choose the preferred features of each, depending on the desires and goals of the system designer.

D. The Applicant argues in reference to Claim 2 that "None of the references suggest insertion of the commercials in an Internet radio broadcast, as required by applicants' claim 1" (page 19). This has been discussed in the above response to the Applicant's argument pertaining to Claims 1 and 7.

E. The Applicant argues in reference to Claim 3 that Chen and Capek disclose using a "high speed transmission of compressed MPEG video data" instead of the Applicant's claimed "presence of an uncompressed low Internet speed audio stream" (page 19). As discussed above,

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Chen discloses that the broadcast stream can be received by the user's cable television set or by the user's personal computer (col 5, lines 15-17). Also noted above, cable television service providers also provide high speed (broadband) Internet connections to their subscribers and are, thus, Internet Service Providers. Furthermore, whether the customer is using a low speed dial-up Internet connection or a high-speed Internet connection, such as through a cable modem or dedicated service link (DSL) telephone line, has no bearing on the steps of the claimed method. Indeed, the Examiner has personally found that using a low-speed connection usually results in very poor performance when connecting to an Internet Radio Service. It was normal for me to experience 5-10 second blackouts while the broadcast stream is spooled into my computer's buffers, then receive 20-30 seconds of audio, then more blackouts, etc. The references' use of high-speed connections is a much-needed and obvious improvement over the old slow-speed dial-up connections.

F. The Applicant again argues in reference to Claims 4-6, 8 and 9 that Chen cannot use demographic information to select the replacement commercial because he does not disclose bi-directional connectivity such as found on the Internet. The Examiner notes that this was discussed in the arguments above and in the final rejection of March 27, 2003. Chen discloses that the information may be displayed to the customer via his television set or personal computer. Wachob discloses that "Return paths for providing two-way communication between cable television headends and subscriber converters are well known in the art" (col 10, lines 40-42). Therefore, Chen not only discloses a bi-directional personal computer at the customer location,

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but also discloses a cable television network which is known to be able to provide two-way (bi-directional) communications. This, taken together with the disclosure of targeting commercials over cable television in Wachob and over the Internet in Capek, renders it obvious to provide targeted commercials to the customer via Chen's bi-directional network.

Conclusion

6. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

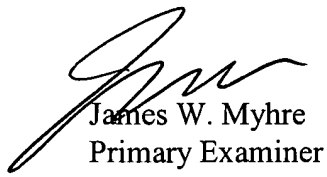
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. James W. Myhre whose telephone number is (703) 308-7843. The examiner can normally be reached on weekdays from 6:30 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber, can be reached on (703) 305-8469. The fax phone number for Formal or Official faxes to Technology Center 3600 is (703) 872-9306. Draft or Informal faxes may be submitted to (703) 872-9327 or directly to the examiner at (703) 746-5544.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703) 308-1113.



JWM
November 13, 2003



James W. Myhre
Primary Examiner
Art Unit 3622